(b) <u>Injectivity Test</u>

Permittee requests permission to conduct an injectivity test on injection well C6-1 to evaluate formation fracture pressure **before** the step rate test (SRT) is performed. The injectivity test results will be used to assess receptivity of the potential injection interval and to confirm the SRT test injection pressures span the range from the measured initial shut-in to the parting pressure of the injection interval. Detailed plans for conducting the injectivity test shall be submitted to EPA for review, possible editing, and approval. Once approved, Permittee may schedule the injectivity test, providing EPA at least thirty (30) days notice before the injectivity test is conducted. Permittee shall adhere to the following conditions in designing and conducting their required injectivity test:

- (i) Injection as proposed in an approved injectivity test procedure is temporarily authorized while the injection is completed.
- (ii) Prior to testing, shut in the well long enough so that the bottom-hole pressure approximates shut-in formation pressure.
- (iii) Measure pressures with a down-hole pressure bomb or other approved pressure monitoring system and synchronize the data with data from a surface pressure recorder.
- (iv) Use enough rate and volume to establish and extend a fracture, of which can be monitored with the surface pressure recorder.
- (v) After a sufficient volume of fluid has been pumped and fracture has been propagated, shut down pumps, record the instantaneous shut-in pressure, and monitor surface pressure decline long enough until fracture closure pressure is observed.
- (vi) A second injectivity test may be recommended by EPA to ensure consistency in fracture pressure results.
- (vii) Permittee shall report the results to EPA within 45 days of conducting the SRT. The results shall include analyses of the pressure decline from the injectivity test and the pressure versus rate.

- (viii) Permittee may produce water from the saline injection interval, filter it, and then use it for the injectivity test. Permittee may also use commercial brine to conduct the test. Laboratory analysis that injectivity representative data on the physical, chemical, or other relevant characteristics of all injected fluids proposed for use during the injection test shall be conducted in accordance with requirements outlined in paragraph E.1.(a). If using non-native fluids, laboratory analysis of proposed injectivity test injection fluids shall confirm the non-hazardous nature of the fluids before the injectivity test is conducted.
- (ix) Detailed plans for conducting the injectivity test shall be submitted to EPA for review, possible editing, and approval. If approved, Permittee may schedule the injectivity test, providing EPA at least thirty (30) days notice before the test is conducted. Non-native fluids to be used during the injectivity test shall comply with Hazardous Waste Determination (see paragraph D.1.(b). of this section) and fluid testing requirements (see paragraph E.1.(a). of this section).